NAME OF THE WORK: ADDITIONAL DEVELOPMENTAL WORKS TO VIDYARANYAPURA INDOOR STADIUM NEW WARD NO.14

(Pre-Measurement Sheet and Measurement Sheet)

BOOK NO – 01

NAME OF THE WORK: ADDITIONAL DEVELOPMENTAL WORKS TO VIDYARANYAPURA INDOOR STADIUM NEW WARD NO.14

Pre-Measurement Sheet

BOOK NO – 01

BBMP

First and Final Bill

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF THE PROJECT: ADDITIONAL DEVELOPMENTAL WORKS TO VIDYARANYAPURA INDOOR STADIUM NEW WARD NO-14

PRE MEASUREMENT SHEET

First and Final Bill

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
1	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material to the appropriate disposal area as per direction of Engineer-in-charge. complete with all lead and lift as per the direction of Engineer-In-Charge							
Measurements taken on	31/03/23							
	Vidyaranyapura Indoor Stadium						16.04	
	Roof						9.69	
	In front of Toilets	Sqm	1	8.91	1.80		10.29	
		Sqm	1	9.89	0.98		36.52	
	Near Staircase	Sqm	1	6.86	1.50		**72.54**	
		Sqm	1	21.11	1.73		**72.54**	
	Total Executed Quantity							
	Qty Carried to Summary							

31/3/23
Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

CIVIL Pro
Sig.....
Date.....
BANGALORE

Contractor

Assistant Engineer

Assistant Executive Engineer

BBMP

First and Final Bill

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
2	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material to the appropriate disposal area as per direction of Engineer-in-charge. In cement mortar complete with all lead and lift as per the direction of Engineer-In-Charge							
Measurements taken on	31/03/23							
	Vidyaranyapura Indoor Stadium							
	TT Room Wall							
		Cum	1	7.80	0.30	3.10	7.25	
		Cum	1	9.82	0.30	1.00	2.95	
	Boxing Room Long wall	Cum	1	12.85	0.30	1.00	3.86	
	"Short wall	Cum						
	Badminton Court						6.62	
		Cum	1	6.05	0.30	3.65	7.06	
		Cum	1	6.45	0.30	3.65	8.87	
		Cum	1	8.10	0.30	3.65		
							7.80	
	Open Terrace Area							
		Cum	1	26.00	0.30	1.00	1.85	
		Cum	1	6.15	0.30	1.00	46.26	
	Total Executed Quantity						**46.26**	
	Qty Carried to Summary							

C&FC
31/3/23

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Contractor

CIVIL Pro
Sig.....
Date.....
BANGALORE

Assistant Engineer

Assistant Executive Engineer

BBMP

First and Final Bill

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
4	Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work.							
Measurements taken on	10/4/23, 13/04/23							
	Vidyaranyapura Indoor Stadium							
	Ew for Flag Foundation	Cum		1	1.50	1.50	1.20	2.70
	Bike Parking Area	Cum		1	15.00	1.5	0.45	10.13
	Bike Parking Area	Cum		1	15.00	1.4	0.45	9.45
	Bike Parking Area	Cum		1	15.00	1.5	0.45	10.13
	Bike Parking Area	Cum		1	15.00	1.6	0.45	10.80
	Bike Parking Area	Cum		1	5.00	1.8	0.45	4.05
	Bike Parking Area	Cum		1	0.18	0.18	0.45	0.15
	Ew For Ms Steps Pillers	Cum		10	1.20	1.2	2.40	13.82
	Skating Ground 9mtr pole	Cum		4	1.20	1.2	2.40	10.37
	Basket ball Ground 9mtr pole	Cum		3	1.20	1.2	2.40	10.37
	Tennis Ground 9mtr pole	Cum		3	1.80	1.8	2.55	8.26
	Foot ball Ground 12m pole	Cum		1	1.80	1.8	2.55	33.05
	Foot ball Ground 16mtr pole	Cum		4				
	For Desilt							
	Vidyaranyapura							
	Basketball Court	Cum		1	15.00	0.45	0.45	3.04
		Cum		1	15.00	0.45	0.45	3.04
		Cum		1	15.00	0.45	0.45	3.04
		Cum		1	5.00	0.45	0.45	1.01
	Footbal Ground	Cum		1	15.00	0.45	0.45	3.04
		Cum		1	15.00	0.45	0.45	3.04
		Cum		1	15.00	0.45	0.45	3.04
		Cum		1	15.00	0.45	0.45	3.04
		Cum		1	13.00	0.45	0.45	2.63
	Next To Raghavendra Mata							
	South side	Cum		1	42.65	0.90	1.00	38.39
	West side	Cum		1	40.75	0.90	1.00	36.68
	North side	Cum		1	45.50	0.90	2.00	81.90
	East side	Cum		1	28.50	0.90	1.00	25.65
	Total Executed Quantity							**330.78**
	Qty Carried to Summary							**330.78**

Asst. Executive Engineer Project Division Yelahanka Zone BBMP, Bangalore - 92

CIVIL Pro Sig Date PMC BANGALORE

Contractor

Assistant Engineer

Assistant Executive Engineer

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
6	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. Mix 1:3:6 (M10) Using 40 mm nominal size graded crushed coarse aggregates.							
Measurements taken on	17/04/23, 24/04/23							
	Vidyaranyapura Indoor Stadium							
	Ew for Flag Foundation	Cum	1	1.50	1.50	0.15	0.34	
	Bike Parking Area	Cum	1	15.00	1.5	0.15	3.38	
	Bike Parking Area	Cum	1	15.00	1.4	0.15	3.15	
	Bike Parking Area	Cum	1	15.00	1.5	0.15	3.38	
	Bike Parking Area	Cum	1	15.00	1.6	0.15	3.60	
	Bike Parking Area	Cum	1	15.00	1.8	0.15	1.35	
	Bike Parking Area	Cum	1	5.00	0.18	0.15	0.05	
	Ew For Ms Steps Pillers	Cum	10	0.18	0.18	0.15	0.86	
	Skating Ground 9mtr pole	Cum	4	1.20	1.2	0.15	0.65	
	Basket ball Ground 9mtr pole	Cum	3	1.20	1.2	0.15	0.65	
	Tennis Ground 9mtr pole	Cum	3	1.20	1.2	0.15	0.49	
	Foot ball Ground 12m pole	Cum	1	1.80	1.8	0.15	1.94	
	Foot ball Ground 16mtr pole	Cum	4	1.80	1.8	0.15		
	Next To Raghavendra Mata						5.76	
	South side	Cum	1	42.65	0.90	0.15	5.50	
	West side	Cum	1	40.75	0.90	0.15	6.14	
	North side	Cum	1	45.50	0.90	0.15	3.85	
	East side	Cum	1	28.50	0.90	0.15		
	For cobble stone						18.01	
	Entry For Ground	Cum	102	31.60	5.7	0.1		
	Deduction						-0.73	
	Chamber	Cum	-6	0.90	0.90	0.15	**58.36**	
	Total Executed Quantity						**58.36**	
	Qty Carried to Summary							

C&RC Kavadraj 24/4/23

Asst. Executive Engineer Projects Division Yelahanka Zone Bangalore

CIVIL Pro Sig..... Date..... PMC BANGALORE

Contractor

Assistant Engineer

Assistant Executive Engineer

BBMP

First and Final Bill

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
7	Providing Size Stone masonry with hard stone in foundation & plinth with Cement mortar 1:6 (1 cement : 6 coarse sand)							
Measurements taken on	18/04/23 , 25/04/23							
	Next To Raghavendra Mata							
	Below Ground							
	South side							
	1st course	Cum	1	42.65	0.75	0.45	14.39	
	2nd course	Cum	1	42.65	0.60	0.45	11.52	
	3rd Course	Cum	1	42.65	0.45	0.23	4.41	
	West side							
	1st course	Cum	1	40.75	0.75	0.45	13.75	
	2nd course	Cum	1	40.75	0.60	0.45	11.00	
	North side							
	1st course	Cum	1	45.50	0.75	0.60	20.48	
	2nd course	Cum	1	45.50	0.60	1.20	32.76	
	3rd Course	Cum	1	45.50	0.45	0.45	9.21	
	East side							
	1st course	Cum	1	28.50	0.75	0.45	9.62	
	2nd course	Cum	1	28.50	0.60	0.45	7.70	
	Deduction							
	Gate	Cum	-1	4.20	0.45	0.45	-0.85	
	Total Executed Quantity						**133.99**	
	Qty Carried to Summary						**133.99**	

C&FC
Kaundra
25/4/23

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Contractor

CIVIL Pro
Sig.....
Date.....
PMC
BANGALORE

Assistant Engineer

Assistant Executive Engineer

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
8	Providing Flush/ Ruled pointing: Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) after raking joints to depth nicely lining, including cost of materials, labour, curing as per specifications and as per directions of Engineer-in-charge.							
Measurements taken on	18/04/23, 25/04/23.							
	PlayGround Next to Raghavendra Swammy Temple							
		Sqm	2	157.40		0.60	188.88	
	Total Executed Quantity						**188.88**	
	Qty Carried to Summary						**188.88**	

25/4/23

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Contractor

CIVIL Pro
Sig. PMC
Date
BANGALORE

Assistant Engineer

Assistant Executive Engineer

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
9	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) M20 Design Mix Using 20 mm nominal size graded crushed coarse aggregates							
Measurements taken on	01/05/23.							
	Next ~~To Raghavendra~~ Mata							
	Plinth Beams							
	South side	Cum	1	42.65	0.40	0.30	5.12	
	West side	Cum	1	40.75	0.40	0.30	4.89	
	North side	Cum	1	45.50	0.40	0.30	5.46	
	East side	Cum	1	28.50	0.40	0.30	3.42	
	Deduction							
	Gate	Cum	-1	4.20	0.40	0.30	-0.50	
	Total Executed Quantity						**18.38**	
	Qty Carried to Summary						**18.38**	

17/5/23

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Contractor

CIVIL Pro Sig..... Date..... PMC BANGALORE

Assistant Engineer

Assistant Executive Engineer

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
10	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) Mix 1:2:4 (M15) Using 20 mm nominal size graded crushed coarse aggregates							
Measurements taken on	30/06/23							
	Vidyaranyapura Indoor							
	Ew for Flag Foundation	Cum	1	1.50	1.50	1.05	2.36	
	Concrte for Inside block work	Cum	1	1.40	1.60	0.15	0.34	
	Concrte for Inside block work	Cum	1	1.10	1.10	0.15	0.18	
	Bike Parking Area	Cum	1	15.00	1.50	0.15	3.38	
	Bike Parking Area	Cum	1	15.00	1.40	0.15	3.15	
	Bike Parking Area	Cum	1	15.00	1.50	0.15	3.38	
	Bike Parking Area	Cum	1	15.00	1.60	0.15	3.60	
	Bike Parking Area	Cum	1	5.00	1.80	0.15	1.35	
	Ew For Ms Steps Pillers	Cum	10	0.18	0.18	0.30	0.10	
	Piller side Filling Concrete	Cum	8	0.20	0.20	2.10	0.67	
	For Bottom of Braking brick Portion	Cum	1	21.00	0.30	0.15	0.95	
	Deduction							19.44
	Piller side Filling Concrete	Cum	-8	0.15	0.15	2.10	-0.38	1.11
	Chamber	Cum	-6	0.90	0.90	0.15	-0.73	
	Total Executed Quantity						**18.34**	
	Qty Carried to Summary						**18.34**	

C&PC
30/6/23
Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Contractor

CIVIL Pro
Sig.....
Date.....
PMC
BANGALORE

Assistant Engineer

Assistant Executive Engineer

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
15	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations and other similar works etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m. complete with all lead and lift as per the direction of Engineer-In-Charge							
Measurements taken on	01/07/23							
	Filling Available of Excavated Earth							
	Earth Work Excavation Irem No 4 +56	Cum	Qty Vide from Item No. 4 + 56				1804.53	
	PCC	Cum	Qty Vide from Item No. 6				-58.36	
	Footing	Cum	Qty Vide from Item No. 20				-16.20	
	for Football Ground	Cum	Qty Vide from Item No. 56				-1080.00	
	Total Executed Quantity						**649.98**	
	Qty Carried to Summary						**649.98**	

CRP
01/7/23

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Contractor

CIVIL Pro
Sig.....
Date.....
PMC
BANGALORE

Assistant Engineer

Assistant Executive Engineer

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
16	Loading and Unloading of Stone Boulder/Stone aggregates/ Sand/Kankar/Moorum. (Tipper 14 m3)							
Measurements taken on	01/07/23							
	Excavated Earth	Cum	Qty Vide From Item no 15				1804.53	
	Filling Available of Excavated Earth						-649.98	
	Total Executed Quantity						**1154.56**	
	Qty Carried to Summary						**1154.56**	

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Contractor

CIVIL Pro
Sig.....
Date.....
BANGALORE

Assistant Engineer

Assistant Executive Engineer

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
17	Cost of Haulage Excluding Loading and Unloading Taking output 10 t load and lead 10 km = 100 t.km							
Measurements taken on	01/07/23							
		t.Km		1154.56		1.28	1477.83	
	Total Executed Quantity						**1477.83**	
	Qty Carried to Summary						**1477.83**	

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Contractor

CIVIL Pro
Sig.....
Date.....
PMC
BANGALORE

Assistant Engineer

Assistant Executive Engineer

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
22	Providing and laying in position Reinforced cement concrete for all Super structures of building , Road works, Water works, Irrigation works & super structure works of bridges upto 3.50 m height. The granite/ trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers laid in layers, well compacted using needle vibrators. The cost includes all lead & lifts, cost of all materials, quality confirming to the requirements of relevant IS codes , labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. M25 Design Mix Using 20 mm nominal size graded crushed coarse aggregates.							
Measurements taken on	19/04/23 , 08/06/23							
	Vidyaranyapura Indoor Stadium Pole Footing Concrete							
	Skating Ground 9mtr pole	Cum	4	1.20	1.20	0.45	2.59	
	Basket ball Ground 9mtr pole	Cum	3	1.20	1.20	0.45	1.94	
	Tennis Ground 9mtr pole	Cum	3	1.20	1.20	0.45	1.94	
	Foot ball Ground 12m pole	Cum	1	1.80	1.80	0.60	1.94	
	Foot ball Ground 16mtr pole	Cum	4	1.80	1.80	0.60	7.78	
	Vidyaranyapura Indoor Stadium Pole Piller Concrete Up To GL							
	Skating Ground 9mtr pole	Cum	4	0.45	0.45	1.80	1.46	
	Basket ball Ground 9mtr pole	Cum	3	0.45	0.45	1.80	1.09	
	Tennis Ground 9mtr pole	Cum	3	0.45	0.45	1.80	1.09	
	Foot ball Ground 12m pole	Cum	1	0.60	0.6	1.80	0.65	
	Foot ball Ground 16mtr pole	Cum	4	0.75	0.75	1.80	4.05	
	Vidyaranyapura Indoor Stadium Ground							
	Columns above Ground Level							
	Skating Ground 9mtr pole	Cum	4	0.45	0.45	0.30	0.24	
	Basket ball Ground 9mtr pole	Cum	3	0.45	0.45	0.30	0.18	
	Tennis Ground 9mtr pole	Cum	3	0.45	0.45	0.30	0.18	
	Foot ball Ground 12m pole	Cum	1	0.60	0.60	0.25	0.09	
	Foot ball Ground 16mtr pole	Cum	4	0.75	0.75	0.25	0.56	
	First Floor							
	Lintel							
	Lintel Concrete for Boxing Area Wall	Cum	1	21.00	0.20	0.20	0.84	
	Lintel Concrete Badminton Court Wall	Cum	1	26.00	0.20	0.20	1.04	

C&RE Laundry A.E.E. (Project)

C&RE Laundry A.E.E. (Project)

C&RE Laundry Asst. Executive Engineer Project Division Yelahanka Zone BBMP, Bangalore - 92 27.6.23

CIVIL Pro Sig..... Date..... BANGALORE

Contractor PMC Assistant Engineer Assistant Executive Engineer

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
	Lintel Concrete Badminton Court Wall	Cum	1	6.30	0.20	0.20	0.25	
	Chajja Boxng Room W	Cum	3	1.40	0.45	0.10	0.19	
			1	2.32	0.45	0.10	0.10	
	Chajja Badminton Room	Cum	2	2.00	0.45	0.10	0.18	
		Cum	1	1.50	0.45	0.10	0.07	
		Cum	1	1.50	0.45	0.10	0.07	
	Total Executed Quantity						**28.54**	
	Qty Carried to Summary						**28.54**	

C&FC
Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Contractor

CIVIL Pro
Sig.....
Date.....
BBMC
BANGALORE

Assistant Engineer

Assistant Executive Engineer

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
27	Providing Thermo-Mechanically Treated bars of grade Fe-500D or more Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position, binding and anchoring to adjacent members whereever necessary complete as per Design including cost of material, labour, usage charges complete as per specifications. (The laps and wastages shall not be measured separately).							
Measurements taken on	28/04/23							
		Kg	From Steel Calculation Sheet				6455.24	
	Total Executed Quantity						**6455.24**	
	Qty Carried to Summary						**6455.24**	

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Contractor

CIVIL Pro
Sig.....
Date.....PMC
BANGALORE

Assistant Engineer

Assistant Executive Engineer

NAME OF THE PROJECT: ADDITIONAL DEVELOPMENTAL WORKS TO VIDYARANYAPURA INDOOR STADIUM NEW WARD NO-14

First and Final Bill

STEEL CALCULATION SHEET

Measurements Chainage From	To	Description	Nos	BAR DIA	No. Bars	Total No. bars	L	Crank length (42d)	Actual Length	Total Length	Weight	Total weight
				mm			m	m	m	m	kg/m	Kg's
Item No.27		Providing Thermo-Mechanically Treated bars of grade Fe-500D or more Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position, binding and anchoring to adjacent members whereever necessary complete as per Design including cost of material, labour, usage charges complete as per specifications. (The laps and wastages shall not be measured separately). (PWD SR 2021-22 Vol -II Pg 84 item no 11.32)										
Measurements taken on		28/04/23										
		PLINTH BEAM										
		Next to Ragavendra swamy Mataa										
		Southside										
		PB(400x300)	1									
		top bars		16	3	3	39.05	0.00	39.05	117.15	1.58	184.90
		bottom bars		25	3	3	38.45	0.00	38.45	115.35	3.85	444.49
		2L-#8mm @100c/cstirrups		8	386	386	1.40	0.00	1.40	539.70	0.39	212.96
		Westside										
		PB(400x300)	1									
		top bars		16	3	3	41.35	0.00	41.35	124.05	1.58	195.79
		bottom bars		25	3	3	40.75	0.00	40.75	122.25	3.85	471.07
		2L-#8mm @100c/cstirrups		8	409	409	1.40	0.00	1.40	571.90	0.39	225.66
		Northside										
		PB(400x300)	1									
		top bars		16	3	3	46.10	0.00	46.10	138.30	1.58	218.28
		bottom bars		25	3	3	45.50	0.00	45.50	136.50	3.85	525.98
		2L-#8mm @100c/cstirrups		8	456	456	1.40	0.00	1.40	638.40	0.39	251.90
		Eastside										
		PB(400x300)	1									
		top bars		16	3	3	29.10	0.00	29.10	87.30	1.58	137.79
		bottom bars		25	3	3	28.50	0.00	28.50	85.50	3.85	329.46
		2L-#8mm @100c/cstirrups		8	286	286	1.40	0.00	1.40	400.40	0.39	157.99
											Sub Total	**3356.28**
		Steel for light pole construction										
		Skating Area 9Mtr Pole for Mat	4									
		Bars Along Long Direction		16	12	48	1.20	0.00	1.20	57.60	1.58	90.91
		Bars Along Short Direction		16	12	48	1.20	0.00	1.20	57.60	1.58	90.91
		Skating Area 9Mtr Pole for Columns										
		8/#20										
		Rectangle Rings #10 @ 150 c/c		20	8	32	2.55	0.00	2.55	81.60	2.47	201.24
				10	18	72	1.80	0.00	1.80	129.60	0.62	79.90

CAFC Kaundry

A.E.E. (Project)

CIVIL Pro Sig..... Date..... BMC BANGALORE

CAFC Kaundry Asst. Executive Engineer

462.97

CONTRACTOR

ASSISTANT ENGINEER

ASSISTANT EXECUTIVE ENGINEER

NAME OF THE PROJECT: ADDITIONAL DEVELOPMENTAL WORKS TO VIDYARANYAPURA INDOOR STADIUM NEW WARD NO-14

First and Final Bill

STEEL CALCULATION SHEET

Measurements Chainage From	To	Description	Nos	BAR DIA	No. Bars	Total No. bars	L	Crank length (42d)	Actual Length	Total Length	Weight	Total weight
				mm			m	m	m	m	kg/m	Kg's
		Basketball Area 9Mtr Pole for Mat	3									
		Bars Along Long Direction		16	12	36	1.20	0.00	1.20	43.20	1.58	68.18
		Bars Along Short Direction		16	12	36	1.20	0.00	1.20	43.20	1.58	68.18
		Basketball Area 9Mtr Pole for Columns										
		8/#20		20	8	24	2.55	0.00	2.55	61.20	2.47	150.93
		Rectangle Rings #10 @ 150c/c		10	18	54	1.80	0.00	1.80	97.20	0.62	59.93
		Tenniscourt Area 9Mtr Pole for Mat	3									
		Bars Along Long Direction		16	12	36	1.20	0.00	1.20	43.20	1.58	68.18
		Bars Along Short Direction		16	12	36	1.20	0.00	1.20	43.20	1.58	68.18
		Tenniscourt Area 9Mtr Pole for Columns										
		8/#20		20	8	24	2.55	0.00	2.55	61.20	2.47	150.93
		Rectangle Rings #10 @ 150 c/c		10	18	54	1.80	0.00	1.80	97.20	0.62	59.93
		12m pole playground -mat	1									
		Bars Along Long Direction		20	16	16	1.80	0.00	1.80	28.80	2.47	71.03
		Bars Along Short Direction		20	16	16	1.80	0.00	1.80	28.80	2.47	71.03
		12m pole playground column										
		8/#20		20	8	8	2.70	0.00	2.70	21.60	2.47	53.27
		Rectangle Rings #10 @ 150 c/c		10	19	19	2.40	0.00	2.40	45.60	0.62	28.11
		16m pole playground -mat	4									
		Bars Along Long Direction		20	16	64	1.80	0.00	1.80	115.20	2.47	284.10
		Bars Along Short Direction		20	16	64	1.80	0.00	1.80	115.20	2.47	284.10
		16m pole playground column										
		8/#20		20	8	32	2.70	0.00	2.70	86.40	2.47	213.08
		Rectangle Rings #10 @ 150 c/c		10	19	76	3.00	0.00	3.00	228.00	0.62	140.57
											Sub Total	**2302.69**

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CIVIL Pro Sig..... Date..... PMC BANGALORE

ASSISTANT ENGINEER

ASSISTANT EXECUTIVE ENGINEER

NAME OF THE PROJECT: ADDITIONAL DEVELOPMENTAL WORKS TO VIDYARANYAPURA INDOOR STADIUM NEW WARD NO-14

First and Final Bill

STEEL CALCULATION SHEET

Measurements Chainage From	To	Description	Nos	BAR DIA	No. Bars	Total No. bars	L	Crank length (42d)	Actual Length	Total Length	Weight	Total weight
				mm			m	m	m	m	kg/m	Kg's
		Lintel Beam										
		Boxing Room										
		Short wall LB (200X200)	2									
		top bars		16	2	4	10.51	0.00	10.51	42.04	1.58	66.35
		bottom bars		16	2	4	10.21	0.00	10.21	40.84	1.58	64.46
		2LGD 8# stirrups @ 100C/C		8	103	206	0.80	0.00	0.80	164.96	0.39	65.09
		Long wall LB (200X200)	1									
		top bars		16	2	2	10.80	0.00	10.80	21.60	1.58	34.09
		bottom bars		16	2	2	10.50	0.00	10.50	21.00	1.58	33.15
		2LGD 8# stirrups @ 100C/C		8	106	106	0.80	0.00	0.80	84.80	0.39	33.46
		Badminton court										
		Short wall LB (200X200)	2									
		top bars		16	2	4	7.00	0.00	7.00	28.00	1.58	44.19
		bottom bars		16	2	4	6.70	0.00	6.70	26.80	1.58	42.30
		2LGD 8# stirrups @ 100C/C		8	68	136	0.80	0.00	0.80	108.80	0.39	42.93
		Long wall LB (200X200)	1									
		top bars		16	2	2	26.70	0.00	26.70	53.40	1.58	84.28
		bottom bars		16	2	2	26.40	0.00	26.40	52.80	1.58	83.34
		2LGD 8# stirrups @ 100C/C		8	265	265	0.80	0.00	0.80	212.00	0.39	83.65
											Sub Total	677.30
		Chajja										
		Boxing room chejja										
		W	3									
		Main bars 12# @100 c/c at top		12	16	48	0.60	0.00	0.60	28.80	0.89	25.57
		Distribution bars 10# @150 c/c		10	5	15	1.50	0.00	1.50	22.50	0.62	13.87
		W	1									
		Main bars 12# @100 c/c at top		12	24	24	0.60	0.00	0.60	14.52	0.89	12.89
		Distribution bars 10# @150 c/c		10	5	5	2.32	0.00	2.32	11.60	0.62	7.15
		Badminton court chejja										
			1									
		Main bars 12# @100 c/c at top		12	16	16	0.60	0.00	0.60	9.48	0.89	8.42
		Distribution bars 10# @150 c/c		10	5	5	1.48	0.00	1.48	7.40	0.62	4.56

Cash Treasury A.E.E. (Project)

CIVIL Pro Sig..... Date..... BANGALORE

CONTRACTOR

ASSISTANT ENGINEER

ASSISTANT EXECUTIVE ENGINEER

NAME OF THE PROJECT: ADDITIONAL DEVELOPMENTAL WORKS TO VIDYARANYAPURA INDOOR STADIUM NEW WARD NO-14

First and Final Bill

STEEL CALCULATION SHEET

Measurements		Description	Nos	BAR DIA	No. Bars	Total No. bars	L	Crank length (42d)	Actual Length	Total Length	Weight	Total weight
Chainage												
From	To			mm			m	m	m	m	kg/m	Kg's
			1									
		Main bars 12# @100 c/c at top		12	15	15	0.60	0.00	0.60	9.00	0.89	7.99
		Distribution bars 10# @150 c/c		10	5	5	1.40	0.00	1.40	7.00	0.62	4.32
			1									
		Main bars 12# @100 c/c at top		12	21	21	0.60	0.00	0.60	12.42	0.89	11.03
		Distribution bars 10# @150 c/c		10	5	5	1.97	0.00	1.97	9.85	0.62	6.07
			1									
		Main bars 12# @100 c/c at top		12	21	21	0.60	0.00	0.60	12.42	0.89	11.03
		Distribution bars 10# @150 c/c		10	5	5	1.97	0.00	1.97	9.85	0.62	6.07
											Sub Total	118.97
											Total Steel Quantity in Kg	6455.24
											Total Steel Quantity in tonne	6.46

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

28/4/23

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ASSISTANT ENGINEER

ASSISTANT EXECUTIVE ENGINEER

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
31	Providing and laying in position Reinforced cement concrete for all Super structures of building , Road works, Water works, Irrigation works & super structure works of bridges upto 3.50 m height. The granite/ trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers laid in layers, well compacted using needle vibrators. The cost includes all lead & lifts, cost of all materials, quality confirming to the requirements of relevant IS codes , labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement, dowel bars & formwork to be paid separately) M20 Design Mix Using 20 mm nominal size graded crushed coarse aggregates.							
Measurements taken on	05/05/2023							
	Shakara Nagar Indoor Stadium							
	sump coping	Cum	1	10.68	2.85	0.10	3.04	
	Deductions							
	pillers	Cum	-4	0.20	0.20	0.10	-0.02	0.06
	MS Cover	Cum	-1	0.60	0.60	0.10	-0.04	
	Ramp Concrete	Cum	1	6.53	2.72	0.30	5.33	
	Ramp edge	Cum	1	2.80	0.20	0.15	0.08	
	Total Executed Quantity						**8.40**	
	Qty Carried to Summary						**8.40**	

C&RC
Krundry 8/5/23

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

8.39

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BANGALORE

Assistant Engineer

Assistant Executive Engineer

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
56	Earth work excavation for pipeline trenches in all kinds of soils by mechanical means above 600 mm trench width as per drawing and technical specifications, including setting out, construction of shoring, strutting, barricading, caution lights, bracing, using sight rails & boning rods at every 100 mm whevere necessary as directed, removal of stumps and other deleterious matter, dressing of sides and levelling the bottom of trench to the extent required , utilising the available excavated earth locally for the work etc., and all other appurtenances complete in the following							
Measurements taken on	03/10/2023							
	Vidyaranyapura Indoor Stadium							
	Skating Area Entry Light to Ground side pole	Cum	2	17.00	0.60	0.75	15.30	
	Pole to Pnnel Board	Cum	1	13.00	0.60	0.75	5.85	
	Pole to Inside Skating Area	Cum	1	25.00	0.60	0.75	11.25	
	Basket Ball							
	Pnael board to Last pole	Cum	2	37.50	0.60	0.75	33.75	
	Pnael board to First Pole inside court	Cum	1	20.00	0.60	0.75	9.00	
	Tennis Court							
	Panel Board To pole	Cum	1	41.00	0.60	0.75	18.45	
		Cum	1	61.00	0.60	0.75	27.45	
	12mtr pole	Cum	1	51.00	0.60	0.75	22.95	
	12mtr pole	Cum	1	35.00	0.60	0.75	15.75	
	12mtr pole 75mm sq wire	Cum	1	75.00	0.60	0.75	33.75	
	12mtr pole 75mm sq wire	Cum	1	68.00	0.60	0.75	30.60	
	16Mtr Pole Panal Board to Gallery Pole	Cum	1	55.00	0.60	0.75	24.75	
	Galeery First Pole to 2nd	Cum	1	50.00	0.60	0.75	22.50	
	Galeery 3rd Pole to Pannel	Cum	1	72.00	0.60	0.75	32.40	
	Galeery 4th Pole to Pannel	Cum	1	200.00	0.60	0.75	90.00	
	Vidyaranyapura Football Ground	Cum	1	90.00	40	0.3	1080.00	
	Total Executed Quantity						**1473.75**	
	Qty Carried to Summary						**1473.75**	

Cafe Laundry 3/10/23

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

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CIVIL Pro Sig..... Date PMC BANGALORE

Assistant Engineer

Assistant Executive Engineer

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
57	Concealed Conduit System Supplying heavy gauge PVC conduit pipe 25 mm dia 2 mm thick confirming to IS 2509 with suitable size bends, metal/PVC junction boxes, adhesive paste etc., and running before concreting the slab. The conduit should be tied to the reinforcement rods by using binding wires and unused ways of junction boxes and pipe ends should be covered using PVC end enclosures, run with 18SWG GI fish wire wherever necessary							
Measurements taken on	04/10/2023							
	Shakara Nagar Indoor Stadium							
	Outside Light Purpose North to south side	Mtr	1	20.30			20.30	
	Down to light connection	Mtr	3	1.80			5.40	
	From Yoga Room to Light	Mtr	2	4.70			9.40	
	From South to North	Mtr	1	29.30			29.30	
	Down to light connection	Mtr	5	1.40			7.00	
	For Light Connction	Mtr	2	1.80			3.60	
	Total Executed Quantity						**75.00**	
	Qty Carried to Summary						**75.00**	

CeFC Kundry 4/10/23

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

Contractor

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Assistant Engineer

Assistant Executive Engineer

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
58	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS-694:confirming to latest amendments. 1.5Sqmm.							
Measurements taken on	04/10/23							
	Shakara Nagar Indoor Stadium							
	Outside Light Purpose North to south side	Mtr	1	8.30			8.30	
	From Yoga Room to Light	Mtr	2	4.70			9.40	
	From South to North	Mtr	1	29.30			29.30	
	For Light Connction	Mtr	2	1.80			3.60	
	Total Executed Quantity						**50.60**	
	Qty Carried to Summary						**50.60**	

Calc Laundry 4/10/23

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

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Assistant Engineer

Assistant Executive Engineer

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
63	Supplying of 1.1 kV, XLPE or Heat resistant PVC insulated, PVC exutruted Inner Seath Armoured LTUG Cable as per IS-1554 (Part1) or IS-7098 Part-1, Armouring strip thickness and resistivity as per IS-3975 25 Sqmm, 3.5 Core, (12 GI Strips - 4 x 0.8 mm)							
Measurements taken on	10|10|23							
	Vidyaranyapura Ground Cable Laying							
	Skating Area Entry Light to Ground side pole	Mtr	2	17.00			34.00	
	Pole to Pnnel Board	Mtr	1	13.00			13.00	
	Pole to Inside Skating Area	Mtr	1	25.00			25.00	
	Basket Ball							
	Pnael board to Last pole	Mtr	2	37.50			75.00	
	Pnael board to First Pole inside court	Mtr	1	20.00			20.00	
	Tennis Court							
	Panel Board To pole	Mtr	1	41.00			41.00	
		Mtr	1	61.00			61.00	
	12mtr pole	Mtr	1	51.00			51.00	
	12mtr pole	Mtr	1	35.00			35.00	
	12mtr pole 75mm sq wire	Mtr	1	75.00			75.00	
	12mtr pole 75mm sq wire	Mtr	1	68.00			68.00	
	16Mtr Pole Panal Board to Gallery Pole	Mtr	1	55.00			55.00	
	Galeery First Pole to 2nd	Mtr	1	50.00			50.00	
	Galeery 3rd Pole to Pannel	Mtr	1	72.00			72.00	
	Galeery 4th Pole to Pannel	Mtr	1	200.00			200.00	
	Total	Mtr					**875.00**	
	Total	**KM**					**0.875**	
	Qty Carried to Summary						**0.875**	

CAFC
10/10/23

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

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Contractor

Assistant Engineer

Assistant Executive Engineer

Sl No	Description of Item	Unit	No	L	B	D	Qty	Remarks
65	11 kV, 3 Core, XPLE HTUG Cable with pressure extruded inner sheeth, ROUND WIRE ARMOURED as per IS-7098 (Part-2) Armouring wires dia and Resistivity as per IS-3975 95 Sqmm, (54 GI Wires - 2.5 mm Dia).							
Measurements taken on	10/10/23							
	Shakara Nagar Indoor Stadium							
	Rmv Connection	Mtr	1	35.00			35.00	
		Km					0.035	
	Total Executed Quantity						**0.035**	
	Qty Carried to Summary						**0.035**	

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

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Contractor

Assistant Engineer

Assistant Executive Engineer